

NAME _____

DATE _____

Module 2 Writing and Simplifying Algebraic Expressions
Lesson 1 Using the Language of Algebra

independent practice

Identify the coefficient of each monomial.

1. $8H$

2. $-y$

3. $-0.003m$

4. $6.9N$

5. $-\frac{c}{7}$

6. $\frac{b}{6}$

7. $\frac{2y}{5}$

8. $\frac{4w}{9}$

Give an example of a term containing . . .

9. a rational number.

10. one variable with a coefficient of 1.

11. the coefficient $\frac{1}{4}$ with one variable.

12. a coefficient of -8 , with one squared variable.

13. a natural number.

14. two variables with a coefficient of -1 .

15. a coefficient with one cubed variable.

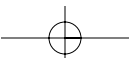
16. a coefficient of $\frac{3}{7}$ and three variables.

Give an example of the following types of polynomials.

17. Trinomial

18. Monomial

19. Binomial



Identify each polynomial as a *monomial*, *binomial*, or *trinomial*.

20. $xy^2 + 4xy - 2$

21. $8.45AB^3C$

22. $3r - 5s$

23. $m^4n^3 + 3m^3n^2 + 5m^2n$

24. $6xy + 4$

25. $a^3b^2 - a^2b^4 - 5ab^2$

26. $3QT^3$

27. $6m + 2n - 1$

State the degree of each monomial.

28. $7y$

29. $6cd$

30. $5xy^2$

31. mn^2p^3

State the degree of each polynomial.

32. $5c^5 - 3c^7 + c^9$

33. $6a^4b - 8ab^3$

Journal

1. Can a coefficient be a fraction? Why or why not?
2. Explain in your own words how a fraction might not be a monomial.
3. Explain in your own words how a monomial is a polynomial.
4. What is the degree of the term $3^3x^2y^2$? Support your answer.
5. What is the degree of the term $3x^3y^2z$? Support your answer.

Cumulative Review

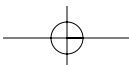
Let $A = \{2, 4, 6\}$, $B = \{6, 8, 10\}$, and $C = \{1, 3, 5\}$. Find the following.

1. $A \cup B$ _____

2. $A \cap B$ _____

3. $B \cap C$ _____

4. $B \cup C$ _____



Evaluate the following radicals, if possible.

5. $\sqrt{-49}$

6. $\sqrt{49}$

7. $-\sqrt{49}$

8. $\sqrt[3]{-27}$

9. $-\sqrt[3]{27}$

10. $-\sqrt[3]{-27}$

Simplify, if possible.

11. -3^2

12. $(-3)^2$

13. $(-2)^3$

14. 2^3

15. $12 - 20 \div 2^2$

16. $\frac{15 + 3(2)}{3}$

Manipulative Problems

Model each polynomial using Algebra Tiles.

1. $x^2 + 3x - 2$

2. $3x^2 - 2x - 1$

3. $-5x - 3$

4. $-2x^2 - 3$

5. $-x^2 - 6x - 4$

